Influence of temperature on the ...   S/186/62/004/005/004/009
E075/E135

for $HNO_3 \geqslant 6N$. This is contrary to the effect of temperature on solutions containing $Pu(NO_3)_5^-$, where the increase of temperature increases complex formation. Oxygen exchange and infra-red spectroscopy studies indicate that in the aqueous phase there are two kinds of UO_2 ions - $[UO_2(H_2O)_2]^{2+} \rightleftarrows [U(OH)_4]^{2+}$. The UO_2 ions have octahedral structure, whereby OH groups, or two O atoms and two H_2O molecules, are situated in a plane with sexavalent U in the centre and two H_2O molecules situated at the apexes of the octahedron. The planar structure of $[U(OH)_4]^{2+}$ is due to hybrid f^3d bonds. Analogous complexes are formed by Np, Pu and Am, the stability of the sexavalent ions in aqueous solutions decreasing in the order $[U(OH)_4]^{2+}$, $[Np(OH)_4]^{2+}$, $[Pu(OH)_4]^{2+}$ and $[Am(OH)_4]^{2+}$. The decrease is due to the increasing number of single electrons in the series. The planar configuration does not exist for Cm.
There are 2 figures and 3 tables.

SUBMITTED: August 5, 1961

Card 2/2

POZHARSKIY, D.

Light industry combines.   Prom. stroi. i inzh. soor. 2
no. 1:34-40 Ja '60.   (MIRA 14:1)

1. Glavnyy inzhener Ukrgiprolegproma.
        (Factories—Design and construction)

DECHKO, B.I.; POZHARSKIY, D.S. [Pozhars'kyi, D.S.]

Ion exchange system for the purification of diffusion juices. Lah.prom. no.1:52-53 Ja-Mr '64.   (MIRA 19:1)

S/081/63/000/001/039/061
B144/B186

AUTHOR: Pozharskiy, F. T.

TITLE: Synthesis of 5-chloro furfural

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 213, abstract
               1Zh135 (Uch. zap. Rostovsk.-n/D. un-ta, v. 60, 1959, 207-209)

TEXT: A method is described for obtaining 5-chloro furfural (I) by
chlorination of furfural (II) or its diacetate (III). Through the mixture
of 0.5 mole of III, 300 ml dichloro ethane, 0.001 mole hydroquinone and
0.001 mole of S (70°C), 1 mole of dry Cl_2 is passed (1 hr); the mixture is
boiled for 2 hrs; the solvent is distilled off; the residue is distilled
at 20 mm ($\leqslant$ 110°C); I is separated from the distillate by distillation
with vapor: yield 44%, m.p. 32-33°C (from 50% alcohol). Under analogous
conditions, II yielded I with an output of 12-14%. Cl_2 is passed (1.5 hr)
through the mixture of 0.5 mole of III, 250 ml C_6H_6, 0.002 mole
hydroquinone and 0.001 mole of S (60°C, protected from light), the mixture

Card 1/2

Synthesis of 5-chloro furfural

S/081/63/000/001/039/061
B144/B186

is boiled for 2 hrs, and I is obtained: yield 28.4%. [Abstracter's note:
Complete translation.]

Card 2/2

SIMONOV, A.M.; MARTSOKHA, B.K.; POZHARSKIY, F.T.

Derivatives of indazole. Part 1: Reaction of
1-benzylindazole with sodium amide. Zhur.ob.khim.
33 no.3:1001-1005 Mr '63.   (MIRA 16:3)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.
            (Indazole)   (Amides)

PROTSENKO, Petr Ivanovich;POZHARSKIY, F.T., red.; ZARKHINA, I.Ya., red.;
     PAVLICHENKO, M.I., tekhn. red.

     [Outline of the development of chemistry at the Rostov University]
     Ocherk razvitiia khimii v Rostovskom universitete. Rostov-na-Domu,
     Izd-vo Rostovskogo univ., 1960. 213 p.   (MIRA 14:9)
          (Rostov-on-Don—Chemistry—Study and teaching)

NAZAROVA, Z.N.; POZHARSKIY, F.T.

     5-chlorofurfurylnitroolefins. Zhur.ob.khim. 28 no.6:1503-1505
     Je '58.   (MIRA 11:8)

     1.Rostovskiy-na-Donu gosudarstvennyy universitet.
          (Furfuryl) (Ethane) (Methane)

SIMONOV, A.M.; MARTSOKHA, B.K.; POZHARSKIY, F.T.

Pyrazole ring expansion under the effect of sodium amide. Zhur.ob. khim. 32 no.7:2388-2389 Jl '62. (MIRA 15:7)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.
          (Benzimidazole)   (Sodium amide)

SIMONOV, A.M.; POZHARSKIY, F.T.; CHEBYSHEVA, L.L.

Substituted amides of furancarboxylic acids. Izv.vys.ucheb.zav;
khim.i khim.tekh. 4 no.5:798-800 '61.   (MIRA 14:11)

1. Rostovskiy gosudarstvennyy universitet, kafedra organicheskoy
khimii.
              (Amides)   (Furoic acid)

POZHARSKIY, F.T,

Synthesis of 5-chlorofuraldehyde. Uch.zap.RGU no.60:207-209
'59.

(Furaldehyde)   (MIRA 14:10)

AUTHORS: Nazarova, Z. N., Pozharskiy, F. T.   SOV/79-28-6-13/63

TITLE: 5-Chlorofurfurylnitroolefins (5-Khlorfurilnitroolefiny)

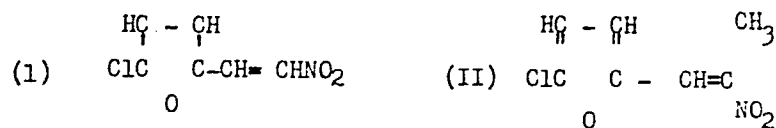PERICDICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 6, pp. 1503-1505 (USSR)

AESTRACT: Nazarova showed earlier that the halogen furfuroles containing
                bromine and iodine in position 5 of the furfuran nucleus can
                earily enter condensation with nitroparaffins. The present
                paper is the continuation of these investigations. It deals
                with the condensation products of 5-chlorofurfurole with
                nitroparaffins, which has hitherto not been carried out in
                spite of many similar condensations. In the last years a great
                number of papers and patents recommending the nitroolefins of
                the aromatic and furfuran series as insecticides (Ref 4) were
                published. As the introduction of a halogen atom to the furfuran
                nucleus stabilizes the latter and increases its bactericide
                effect, it was to be expected that the condensation investigated
                by the authors might be of practical interest. The condensation
                of 5-chlorofurfurole with nitromethane and nitroethane was
                carried out, with the method by Moldenhauer (Mol'dengauer)
                having been somehow modified. It was possible to synthesize
1/2   5-chlorofurfurylnitroethylene (formula I) in a yield of 86%.

5-Chlorofurfurylnitroolefins   SOV/79-28-6-13/63

The 5-chlorofurfurylnitropropene (II) was obtained in a yield
of 79% according to the method described earlier (Ref 1):

$$\text{(1)} \quad \begin{array}{c} HC - CH \\ ClC \quad C-CH= CHNO_2 \\ O \end{array} \qquad \text{(II)} \quad \begin{array}{c} HC - CH \quad CH_3 \\ ClC \quad C - CH=C \\ O \qquad NO_2 \end{array}$$

The 5-chlorofurfurylnitroolefins, recrystallized from alcohol,
form light-yellow pins and can be solved only in organic solvents.
There are 7 references, 4 of which are Soviet.

ASSOCIATED: Rostovskiy-na-Donu gosudarstvennyy universitet
               (Rostov-na-Donu State University)

SUBMITTED: June 11, 1957

1. Furfurals--Condensation reactions   2. Nitromethanes--Condensation reactions

Card 2/2

POZHARSKIY, F.T.; NABOKA, N.F.

        Synthesis of N-acylindazoles and 6-acylaminoindazoles with furan
        nuclei. Zhur.ob.khim. 31 no.6:1934-1936 Je '61.   (MIRA 14:6)

        1. Rostovskiy-na-Donu gosudarstvennyy universitet.
                   (Indazole)   (Furan)

POZHARSKII F.T.

The study of the reaction between phenylhydrazine and microphenols by the method of physicochemical analysis. Candidate to D. E. Dionis ev (State Univ., Rostov).

POZHARITSKIY G-K.

Požarickiĭ, G. K. On the characteristic number of the vanishing solution of the equations of perturbed motion. 1 - F/N
Prikl. Mat. Meh. 19 (1955), 481–484. (Russian)

The author makes various simple remarks on the connection between the characteristic numbers of the linear vector system $dx/dt = P(t)x$ and those of the perturbed system $dx/dt = P(t)x + X(x, t)$, where X is holomorphic in x and is $O(\|x\|^2)$ for small $\|x\|$. An application is to whether the vector system $dy/dt = Y(y, t)$ can have two solutions whose difference tends to zero as $t \to \infty$. Another application is to a dynamical problem, but the explanation is incomplete. [Reviewer's remark: The author mostly assumes that $dx/dt = P(t)x$ is "regular", for which case fuller information is to be had from series solutions; see, e.g., V. V. Nemyckiĭ and V. V. Stepanov, Qualitative theory of differential equations, 2nd ed. Gostehizdat, Moscow-Leningrad, 1949, pp. 240 241. For a review of the 1st ed. see MR 10, 612.] F. V. Atkinson.

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POZHARSKIY, F.T.

Physicochemical analysis of the interaction of phenyl-hydrazine and nitrophenols. D. E. Dionin'ev and F. T. Pozharskii (V. M. Molotov State Univ., Rostov-on-Don). Sbornik Statei Obshchei Khim., Akad. Nauk S.S.S.R. 1, 219-22(1953).—To det. the effect of the nitro group and its position in the mol. on the interaction between the phenolic OH and phenylhydrazine (I) the mutual soly., d., and the viscosity η of the 3 systems were detd. Plots of these and the temp. coeff. of the viscosity γ as functions of the compn., in mol. %, indicated the following: (a) In the o-nitrophenol-I system there is a eutectic at 2° with 75% I but no compd.; d. is linear, and plots of η and γ give curved lines. (b) In the m- and p-systems there are 2 eutectics and a 1:1 compd. which melt congruently at 42 and 64° in the m- and p-systems, resp.; plots of the d., η, and γ give curved lines; the compds. crystallize readily and are stable in air (6 days). η increases from o- to p-nitrophenol.
                                          I. Bencowitz

POZHARSKIY, F.T.; SAYAPIN, V.G.; MARTSOKHA, B.K.

Halogenation of indazole and its derivatives by complex compounds of halogens with dioxane. Zhur. ob. khim. 34 no.8:2777-2778 Ag '64.   (MIRA 17:9)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

POZHARSKIY, F.T.; KAZANBIYEVA, M.A.; TERTOV, B.A.

    1-Hydroxymethyl derivatives of indazoles. Zhur. ob. khim. 34 no.10:
3367-3370 O '64.
                                     (MIRA 17:11)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

SINYAGIN, Irakliy Ivanovich, akademik; PASKHIN, N.F.; NIKONOVA,
Ye.A., dots.; POZHARSKIY, V.K.; OGRYZKOV, S.Ye., kand.
veter. nauk; LOZHKIN, N.I., kand. biol. nauk; MUROMETS,
I.I., red.; VILENSKAYA, O.V., red.-leksikograf; ARTEMOV,
L.V., red.-leksikograf; VACHAYEVA, Z.P., red.-leksikograf

[German-Russian agricultural dictionary] Nemetsko-russkii
sel'skokhoziaistvennyi slovar'. Moskva, Sovetskaia
Entsiklopediia, 1965. 684 p.   (MIRA 18:7)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk
imeni V.I.Lenina (for Sinyagin).

POZHAY,A.

High voltage flat diodes. Radio no.10:44 O'55. (MIRA 9:1)
(Diodes)

POZHAYEVA, N. S. (Dotsent)

"K Voprosy o Regionarnoy Sosudistoy Patologii Golovnogo Mozga."

p. 82   V sb Aktual'nyye Problemy Nevropatologii i Psikhiatrii. Kuybyshev. 1957.

Iz kafedry Kuybyshevskogo Gosudarstvennogo Meditsinsksog Instituta.

POZHESTVENSKIY, G. D.

USSR/Geography - Flood Streams   Mar/Apr 53

"Conference on the Study of Flood Streams," M. A.
Velikanov and G. D. Pozhdestvenskiy

"Iz Ak Nauk SSSR, Ser Geograf" No 2, pp 72-75

Discussion of the All-Union Conference of the Com-
mission for Studying Flood Streams Acad Sci USSR
held 23 - 29 Oct 52 in Tbilisi. The Acad Sci
Georgian SSR and the Georgian Sci Res Inst of Hy-
draulics and Land Improvement were represented at
the conference. There were ten sessions, at which
twenty reports were presented.

246T56

23

Manufacture of Aluminium Mirrors. S. I. Levikov and V. N. Pozhdest-venskii (*Optiko-Mekhan. Prom.*, 1940, **10**, (10). 11-14; *C. Abs.*, 1941, **35**, 5660).—Different methods used for silvering glass are discussed, and attempts made to coat glasses (Pyrex, plate, and optical) with aluminium in a vacuum are described.

17

CA

Manufacture of aluminum mirrors. S. I. Levikov and V. A. Pozhdestvenskil. *Optiko-Mekhan. Prom.* 10, No. 11-14 (1940).—Different methods used for silvering glass are discussed and attempts made to coat glasses (Pyrex, plate and optical) with Al in a vacuum are described.
M. V. Condoide

POPOVA, Yu. M.

POPOVA, Yu. M.: "The behavior of certain semiconductors in strong electrical fields." Leningrad Order of Lenin State U imeni A. A. Zhdanov. Leningrad, 1956. (Dissertation for the Degree of Candidate in Physicomathematical Science.)

Knizhnaya letopis', No. 30, 1956. Moscow.

POZHELA, Yu. K.

"On the Behavior of Semiconductors in Powerful Electrical Fields," by Yu. K. Pozhela, Institute of Semiconductors, Academy of Sciences USSR, Radiotekhnika i Elektronika, No 8, Aug 56, pp 1106-1112

From experiments conducted at the Laboratory of V. P. Zhuze of the Institute of Semiconductors it can be concluded that, despite the limitations and difficulties of obtaining a nonrectifying point contact, the "probe" method yields a series of important factors concerning the conduct of semiconductors in powerful electrical fields.

For example, p - Ge and Cu_2O permitted us to determine which way additional current carriers appear as the result of the action of a powerful field and to make some conclusions concerning the mechanism of this phenomenon. Moreover, it was directly proved that the additional carriers are responsible for the increase of semiconductor electrical conductivity in a powerful electrical field.

In the case of p-Ge, the drift of the carriers was observed and in the case of Cu_2O, their lifetime was measured.

Appreciation was expressed to Academician A. F. Ioffe, V. P. Zhuze, and G. E. Pikus for their assistance in carrying out the experiment.

Sum 1274

Pozhela, Yu. K.

The action of a strong field in semiconductors, Yu. K. Pozhela. Zhur. Tekh. Fis. 26, 277-80(1956).—It is shown that it is possible to det. from the shape of the v.-amp. characteristic with a neg. and a pos. probe, whether the electrons created in the cond. band by a crit. field E_k come from impurities, from the valence band, or are injected by tunneling from the contacts. Measurements made on Cu_2O and p-type Ge with ohmic contacts show that in p-type Ge the electrons are transferred in strong fields from the valence to the cond. band $E_k \approx 10^5$ v./cm. In Cu_2O the electrons are transferred from the filled band to an impurity level with formation of a hole. $E_k \approx 15$ kv./cm.   S. Pakswer

POZHELA, YU K.

The drift of charge carriers formed by the action of a strong field. Yu. K. Pozhela. *Zhur. Tekh. Fiz.* 26, 281-3 (1956).—The drift velocity of addnl. charge carriers formed by strong fields was measured in p Ge and in Cu_2O.

S. Pakswer

69187

SOV/137-59-12-27056

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 12, p 183 (USSR)

24.770 9.4120

AUTHOR: Pozhela, Yu.

TITLE: The Effect of a Strong Field in Semiconductors

PERIODICAL: Uch. zap. Vil'nyussk. un-t., 1958, Vol 25, pp 117 - 120

ABSTRACT: The author suggests the introduction of minor charge carriers into a
            semiconductor by the action of a strong electric field. On the basis
            of an analogy of phenomena in gas discharge and the effect of a strong
            field in semiconductors, it is assumed that semiconductors can be used
            to develop thyratron type trigger devices.

                                              R.O.

Card 1/1

24.7700
24(3), 24(6)

AUTHORS: Gashka, I. I., Pozhela, Yu. K.   SOV/181-1-9-18/31

TITLE: Measurement of Electrical Parameters of a Semiconductor by
               Means of the shf-Technique

PERIODICAL: Fizika tverdogo tela, 1959, Vol 1, Nr 9, pp 1431 - 1433 (USSR)

ABSTRACT: The authors determined lifetime, sign and mobility of the
               minority carriers in germanium by means of an apparatus
               devised specially for this purpose, and whose block diagram
               is shown in figure 1. Square voltage pulses are fed into the
               sample by means of a pulse generator, triggered by a
               synchronizing block with a certain time delay with respect
               to the scanning triggering of the oscilloscope. From one of
               the sample contacts, which are situated inside the waveguide,
               there proceeds the injection and drift of the minority
               carriers within the sample volume. As a consequence thereof,
               the amount of conductivity changes in that part of the probe
               which is situated directly in the waveguide. After the pulse
               injection stops, conductivity goes back to its original value
               at a rate which is dependent on the mean life of the introduced
Card 1/2   carrier. The change in the attenuation of the electromagnetic

Measurement of Electrical Parameters of a Semiconductor SOV/181-1-9-18/31
by Means of the shf-Technique

wave in the waveguide occurring in this connection is
recorded by a special indicator. Figure 2 shows a typical
oscillogram of the relaxation process taking place in ger-
manium. The carrier lifetime can be determined from the con-
ductivity drop. The advantages of this method are discussed
in detail. The method allows the injection of nonequilibrium
carriers not only by means of an injection contact but also
by light (light probe). Light pulse investigations of the
relaxation of photoresistivity were carried out on single
germanium crystals, PbS films and polycrystalline PbS disks.
Next, the authors describe the determination method of sign
and drift rate of the carrier. Finally, the authors thank
A. I. Vebre for his assistance. There are 2 figures and
1 reference.

ASSOCIATION: Institut fiziki i matematiki AN Litovskoy SSR (Institute of
                Physics and Mathematics of the Litovskaya SSR). Vil'nyusskiy
                gosudarstvennyy universitet im. V. Kapsunansa (Wilna State
                University imeni V. Kapsunans)

SUBMITTED: March 16, 1959
Card 2/2

POZHELA, Yu.K. [Pozela, J.]; SAULIS, A.A. [Saulis,A.]

Injection and drift of great concentrations of minority carriers in
germanium. Liet ak darbai B no.2:83-92 '60.   (EEAI 10:1)

1. Institut fiziki i matematiki Akademii nauk Litovskoy SSR
      (Germanium)   (Semiconductors)   (Telephone)

S/181/62/004/006/033/051
B108/B138

247700

AUTHORS: Pozhela, Yu. K., and Shilal'nikas, V. I.

TITLE: Emission of hot electrons from germanium

PERIODICAL: Fizika tverdogo tela, v. 4, no. 6, 1962, 1601-1603

TEXT: Experimental evidence has been found that in a strong electric
field the carriers in valency semiconductors attain high temperatures.
The thermo-emf may then cause emission of hot carriers from the surface of
p-type semiconductors. Experiments with germanium, however, failed
unless the specimens were treated in cesium vapor to reduce the work
function. There is 1 figure.

ASSOCIATION: Institut fiziki i matematiki AN Lit. SSR, Vil'nyus
              (Institute of Physics and Mathematics AS LithSSR, Vil'nyus)

SUBMITTED: February 12, 1962

Card 1/1

BANIS, T.Ya.; VEBRA, A.I.; POZHELA, Yu.K.; REPSHAS, K.K. [Repsas, K.];
SHILAL'NIKAS, V.I. [Silalnikas, V.]

Heating of the current carriers in semiconductors in strong
electric fields. Radiotekh. i elektron. 7 no.9:1519-1522 S '62.
(MIRA 15:9)

1. Institut fiziki i matematiki AN Litovskoy SSR.
(Electric fields)   (Semiconductors)

S/181/63/005/003/005/046
B102/B180

AUTHORS: Pozhela, Yu. K., and Shilal'nikas, V. I.

TITLE: The problem of hot electron emission from germanium

PERIODICAL: Fizika tverdogo tela, v. 5, no. 3, 1963, 730-733

TEXT: New experiments were made in order to investigate the recently dis-
covered phenomenon of an emission of hot electrons from Si or SiC p-n
junctions and from germanium surfaces after treatment in cesium vapors
(FTT, 4, 1601, 1962). A sample of n-type germanium was placed in a
vacuum waveguide and exposed to intense h-f pulses (60 kw, pulse duration
0.5 µsec, repetition frequency 10-50 cps, carrier frequency
10^{10} cps, field in the sample 3.5 kv/cm) and, from resistance measurements
with and without field, the characteristics of I the emission current were
obtained. As a function of the field amplitude I shows a similar course
as for Si, Ge, or SiC p-n junctions; it tends to, but does not reach
saturation. As a function of the anode voltage I does reach saturation;
$B = R(E)/R(0)$ as a function of E increases linearly and

Card 1/2

The problem of hot electron emission ...

S/181/63/005/003/005/046
B102/B180

$I/B = f(1/B^2)$ shows an exponential decrease. The results agree with the relation $I = b \sqrt{E} \exp(-c/E^2)$, (FTT, 4, 2015, 1962), which, since $B \sim E$ and $T_e = \alpha B^2$ can be modified: $I = A \sqrt{T_e} \exp(-\varphi/kT_e)$. φ is the electron work function. On the assumption that $\varphi \approx 2$ ev, $\alpha = (4 - 9)T_o$, where T_o is the lattice temperature; $A = 1.6 \cdot 10^{-1} a/deg^{1/2}$. There are 6 figures.

ASSOCIATION: Institut fiziki i matematiki AN Lit.SSR, Vil'nyus
(Institute of Physics and Mathematics AS LitSSR, Vil'nyus)

SUBMITTED: September 18, 1962

Card 2/2

L 14949-66   EWT(1)/EWT(m)/EWP(b)/EWP(t)   IJP(c)   JD

ACC NR: AT5028692   SOURCE CODE: UR/2910/64/004/004/0485/0490

AUTHOR: Repshas, K. K. (Repsas, K.); Pozhela, Yu. K. (Pozela, J.)

ORG: Institute of Physics and Mathematics, Academy of Sciences of the Lithuanian SSR (Institut fiziki i matematiki Litovskoy SSR)

TITLE: Thermal electromotive force of hot electrons and electroconductivity of n-germanium in the region where it is a function of the square of electric field intensity

SOURCE: AN LitSSR. Litovskiy fizicheskiy sbornik, v. 4, no. 4, 1964, 485-490

TOPIC TAGS: thermal emf, electric conductivity, electric field, germanium, electron temperature, phonon, electron temperature, pn junction, electrode

ABSTRACT: Thermal emf and electroconductivity measurements were made on a single configuration of germanium of 10 ohm-cm density for electric fields of up to 400 v/ /cm. A T-shaped block with a narrowed midsection was used to avoid injection from the electrode attachments and to concentrate the applied electric field in the narrow, treated part of the sample. In the electroconductivity measurement, a bridge

Card 1/3

L 14949-66
ACC NR: AT5028692

arrangement was used to measure change of sample resistance as a function of change
in field intensity caused by a voltage pulse of 2 microsecond duration.   Results
show R directly proportional to E^2 for range of E covered.   The thermal emf measure-
ment on the same sample was measured between a pointed probe placed on the narrow
part of the sample where there was electron heating and an ohmic contact attached to
a projection where there was no electron heating.   The probe and contact were locat-
ed as nearly as possible on an equipotential surface.   Because sinusoidal current
rather than a current pulse was used, the sample tended to heat up with $E > 50$-100
v/cm.   Since an experiment using current pulses showed that the constant of heating
was several seconds per $^\circ$C at $E = 20$ v/cm, emf measurements were made at the moment
the field was turned on.   Since thermal emf decreases as heating proceeds, there is
considerable scatter in the data points and only qualitative conclusions may be
drawn.   The measured emf here was almost two orders of magnitude less than those in-
dicated by Stenbeck.   The data points are close to a line calculated from U_{n} =

$= 2_{X_0} \beta E^2$, where U is thermal emf, X_0 is the height of the barrier between the "hot"
n-region and "cold" p-region of the pn junction at the probe, which was taken to
be 0.7 ev; and β the constant in the electroconductivity equation, $\mu_0 = \mu_0(1-\beta E^2)$;
by the authors' measurement, here $\beta = 2.3 \cdot 10^{-7}$ cm^2/v^2.   The close correspondence of
the upper (minimum heating of sample) data points to this line indicates that the

Card 2/3

L 14949-66
ACC NR: AT5028692

results of the two different measurement methods at least approximately agree and
lead to the same values for electron temperatures. The authors thank V. Denis and
R. Vashkyavichus for their help. Orig. art. has: 5 figures, 9 formulas.

SUB CODE: 20/   SUBM DATE: 22Jan64/   ORIG REF: 001/   OTH REF: 007

Card 3/3

L 30080-65   EWT(m)/EWP(t)/EWP(b)   IJP(c) ˙ JD

ACCESSION NR: AT5002022   S/2910/64/004/003/0399/0403

AUTHOR: Shilal'nikas, V. I. (Silalnikas, V.); Pozhela, Yu. K. (Pozela, J.)

TITLE: Hot electron emission from silicon

SOURCE: AN LitSSR. Litovskiy fizicheskiy sbornik, v. 4, no. 3, 1964, 399-403

TOPIC TAGS: silicon, hot electron emission, semiconductor, microwave field, electron temperature

ABSTRACT: The theory of hot electron emission predicts that an emission current from silicon must be observed in electric fields on the order of a few kv/cm under the condition that $W_i > \chi_1$ (W_i is the energy which is necessary for impact ionization; χ is the electron affinity). Assuming that

$$\frac{\mu(E)}{\mu(o)} = \left(\frac{T_o}{T_e}\right)^2$$

where $\mu(E)$ and $\mu(o)$ are the mobilities of the current carriers in the electric field E and in the absence of the field, respectively, one may predict the emission current of hot electrons from silicon by determining the electron temperature, us-

Card 1/3

L 30080-65

ACCESSION NR: AT5002022

ing the experimental dependence of their mobility on the electric field intensity. This estimate gives 10^4 ma/cm^2 when the field intensity is 3 kv/cm.   In this work, the emission of hot electrons from a homogeneous n-type silicon specimen was observed. The surface of the crystal was treated with cesium to reduce the surface barrier. The hot electron emission current was 0.6 A/cm^2. Similar emission was observed in silicon crystals not treated with cesium. The dependence of the hot electron emission current on the electric field intensity is shown in Fig. 1 of the Enclosure. Orig. art. has: 4 figures and 1 formula.

ASSOCIATION: Institut fiziki i matematiki Akademii nauk Litovskoy SSR (Physics and mathematics institute, Academy of sciences, Lithuanian SSR)

SUBMITTED: 30Dec63   ENCL: 01   SUB CODE: SS, EC

NO REF SOV: 003   OTHER: 002
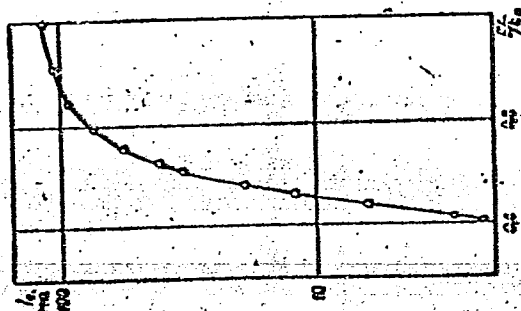
Card 2/3

L 30080-65

Figure 1. Hot electron emission current from n-silicon as a function of the field intensity.

Card 3/3

L 30081-65   EWT(m)/EWP(t)/EWP(b)   IJP(c)   JD

ACCESSION NR: AT5002023   S/2910/64/004/003/0405/0412

AUTHOR: Kal'venas, S. P. (Kalvenas, S.); Pozhela, Yu. K. (Pozela, J.)

TITLE: The effect of the surface on the electrical conductivity of germanium in a strong microwave field

SOURCE: AN LitSSR. Litovskiy fizicheskiy sbornik, v. 4, no. 3, 1964, 405-412

TOPIC TAGS: germanium, electrical conductivity, surface property, semiconductor surface, current carrier, electron diffusion, electric field, microwave field

ABSTRACT: The semiconductor surface can differ greatly in its electrical properties from the bulk of the semiconductor due to geometric discontinuity of the crystal lattice as well as the presence of vacancies, foreign impurities, and adsorbed molecules of water and gas on the surface. The surface of a semiconductor also possesses different chemical properties than the bulk. These factors lead to the occurrence of surface states which result in a different mobility of the current carriers near the surface, different work function, rectification, recombination, conductivity and noise. One would also expect the strong field effects on the surface to be different from the bulk. In this work, a study was made of the sur-

Card 1/2

L 30081-65   4

ACCESSION NR: AT5002023

face behavior in a strong electric field. The investigated germanium specimens were rectangular rods alloyed with antimony. The magnitude of the rate of surface recombination S was determined by measuring the relaxation time of the electrical conductivity of specimen τ eff during the injection of minority carriers. It was established that in strong electric fields the germanium surface may lead to significant changes in the concentration of the current carriers in the bulk. "The authors express their gratitude to L. Klimke, M. Denene and D. Kalinauskas for their help." Orig. art. has: 4 formulas and 7 figures.

ASSOCIATION: Institut fiziki i matematiki Akademii nauk Litovskoy SSR (Physics and mathematics institute, Academy of sciences, Lithuanian SSR)

SUBMITTED: · 22Jan64   ENCL: 00   SUB CODE: SS, EC

NO REF SOV: 006   OTHER: 006

Card 2/2

REPSHAS. K. [Repsas, K.]; VASHKEVICHUS, R. [Vaskevicius, R.]; DENIS, V.;
        POZHELA, Yu. [Pozela, J.]

        Hall effect in p-germanium in strong electric fields. Fiz. tver.
        tela 7 no.3:927-928 Mr '65.   (MIRA 18:4)

        1. Institut fiziki i matematiki AN Litovskoy SSR, Vil'nyus.

KAL'VENAS, S.P. [Kalvenas,S]; POZHELA, Yu.K. [Pozela, J.]

Recombination of hot current c rriers via recombination centers
on a germanium surface. Fiz. tver. tela 7 no. 12:3512-3514
D '65   (MIRA 19:1)

1. Institut fiziki i matematiki AN Litovskoy SSR, Vil'nyus.

L 45204-65   EWT(1)/   IJB(c)
ACCESSION NR: AP5006913   s/0181/65/007/003/0927/0928

AUTHOR: Repshas, K.; Vashkevichus, R.; Denis, V.; Pozhela, Yu.

TITLE: Hall effect in p-type germanium in strong electric fields

SOURCE: Fizika tverdogo tela, v. 7, no. 3, 1965, 927-928

TOPIC TAGS: Hall effect, carrier temperature, germanium, electric conductivity, microwave field, relaxation time

ABSTRACT: The authors developed a new procedure for the measurement of transverse effects in a strong electric field in which a microwave field is used to heat the carriers. This procedure was used to investigate the Hall effect on hot carriers in p-type germanium (resistivity 5 ohm-cm). The strong microwave field was perpendicular to the weak constant field along the sample and had to same direction as the magnetic field. The results are shown in Fig. 1 of the Enclosure. Comparison of the curves leads to the conclusion that the Hall constant in the strong microwave field is smaller than in the absence of the field. This decrease is in accord with the change occurring in the distribution function of p-Ge in strong

Card 1/3

L 45204-65
ACCESSION NR: AP5006913

electric fields, observed experimentally and deduced theoretically by others. In
addition, the decrease in the Hall constant in p-Ge can be due to the nonparaboli-
city of the light-hole band, and it is probable that the decrease in the Hall con-
stant with increase in the field is due to both mechanisms. Orig. art. has: 1
figure and 2 formulas.

ASSOCIATION: Institut fiziki i matematiki AN LitSSR, Vil'nius (Institute of Phys-
ics and Mathematics, AN LitSSR)

SUBMITTED: 21Jul64   ENCL: 01   SUB CODE: SS, EM

NR REF SOV: 000   OTHER: 004

Card 2/3

L 24325-66   EWT(m)/EWP(t)   IJP(c)   JD

ACC NR: AT6009583   .   SOURCE CODE: UR/2910/63/003/03-/0413/0413

AUTHORS: Kal'venas, S. P.--Kalvenas, S. ; Pozhela, Yu. K.--
Pozela, J.

ORG: Institute of Physics and Mathematics, Academy of Sciences,
Lithuanian SSR (Lietuvos TSR Mokslu akademijos Fizikos ir matematikos
institutas)

TITLE: Recombination of hot carriers in strong electric fields in
germanium in the region of intrinsic conductivity

SOURCE: AN LitSSR. Litovskiy fizicheskiy sbornik, v. 3, no. 3/4,
1963, 413-418

TOPIC TAGS: germanium, semiconductor carrier, semiconductor
conductivity, electron recombination, physical diffusion, temperature
dependence , carrier density, electric field

ABSTRACT: To determine the change of the carrier density under the
influence of a strong field, brought about by the change in the rate
of recombination under the influence of the strong field, the authors

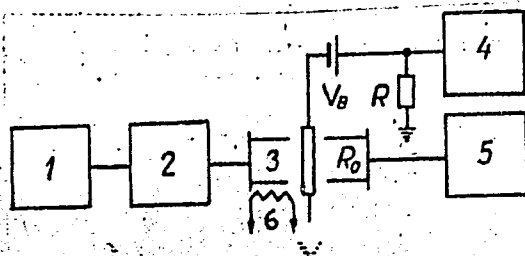Card   1/3

L 24325-66

ACC NR: AT6009583

Fig. 1. Block diagram of setup.
1 -- Magnetron generator with trig-
gering block, 2 -- attenuators and
ferrite gate, 3 -- waveguide with
sample, 4 -- oscilloscope with ampli-
fier and limiter, 5 -- short circuit-
ing waveguide plunger, 6 -- heating
oven.

investigated the resistance of n-type germanium in strong fields at
temperatures + 15 and + 180C, using samples in which no recombination
centers were specially introduced. The field was produced by placing
the sample in a rectangular waveguide through which a strong micro-
wave signal of 10^{10} cps was propagated in H_{10} mode. The pulse power
was 30 kw and the pulse duration was 2 μsec; the repetition frequency
was from 2 to 10 cps. Apparatus with a short circuiting plunger
(Fig. 1) was used to maximize the field in the sample. The use of

Card   2/3

L 24325-66
ACC NR: AT6009583   *3*

a microwave strong field eliminated the influence of the dragging of
the carriers by the strong field. From the change in the resistance
during the time of application of the microwave pulse it is possible
to deduce the change in the recombination rate of the minority
carriers, the temperature dependence of the change in the recombina-
tion rate, and the diffusion coefficient in the strong field. The
methods of determining these quantities are briefly described. The
results show that the recombination rate increases with increasing
electric field and that the recombination centers are apparently
charged. The authors thank L. Mogil'nitskiy, R. Vashkyavichus,
and A. Yakuchenis for help with the work. Orig. art. has: 3 figures
and 1 formula.

SUB CODE: 20/ SUBM DATE: 28Dec62/ ORIG REF: 002/ OTH REF: 001

Card   3/3   *PB*

L 24324-66   EWT(1)/T/EWA(h)   IJP(c)   AT

ACC NR: AT6009584   SOURCE CODE: UR/2910/63/003/03-/0419/0425

AUTHORS: Banis, T. Ya. Banys, T. ; Pozhela, Yu. K. Pozela, J

ORG: Institute of Physics and Mathematics, AN LitSSR (Institut fiziki i matematiki AN LitSSR); Vilnius State Pedagogical Institute (Vil'nyusskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: Determination of the inertia of carrier heating in a semi-conductor

SOURCE: AN LitSSR. Litovskiy fizicheskiy sbornik, v. 3, no. 3/4, 1963, 419-425

TOPIC TAGS: semiconductor carrier, relaxation process, germanium, volt ampere characteristic

ABSTRACT: This is a continuation of earlier work (Radiotekhnika i elektronika v. 7, No. 9, 1 19, 1962) dealing with the relaxation of the resistance of a semiconductor, and the time lag in the heating of the carriers in a semiconductor by flow of current. Inasmuch as the heating and the cooling of the carrier gas in the semiconductor

Card   1/2

L 24324-66

ACC NR: AT6009584 O

cannot occur instantaneously, the authors propose to investigate the relaxation of the resistance of germanium by determining the zeroth harmonic of the current flowing to the sample placed in a strong biased alternating electric field. It is shown first that the zeroth harmonic is strongly dependent on the relaxation resistance time. The differential equation for the resistance relaxation is solved and the equations for the integration constants are determined from the boundary conditions. It is then shown that by comparing the experimental null current in semiconductors having a prescribed volt-ampere characteristic it is possible to determine the relaxation time of the carrier energy. The method described makes it possible to determine very short relaxation times by microwave techniques. Preliminary measurements of the relaxation of carrier heating in germanium, carried out at 10 Gcs, show that the time is shorter than 10^{-11} sec. The method can be extended to include arbitrary volt-ampere character-istics and arbitrary resistance-relaxation processes. It is shown that in the fields whose period is close to the relaxation time of the carrier energy the zeroth harmonic of the current is very sensitive to the change in the relaxation time, which can be determined experimentally. Orig. art. has: 3 figures and 5 formulas.

SUB CODE: 20/ SUBM DATE: 28Dec62/ ORIG REF: 002

Card   2/2 PB

L 04231-67   EWT(1)/EWT(m)/EWP(w)/T/EWP(t)/ETI   IJP(c)   JD

AUTHOR: Denis, V. I.; Pozhela, Yu, K.

TITLE: Anisotropy of the conductivity of n germanium and n silicon in crossed electric fields

SOURCE: Ref. zh. Fizika, Abs. 6E644

REF SOURCE: Lit. fiz. sb., v. 5, no. 4, 1965, 515-528

TOPIC TAGS: conductivity, anisotropy, germanium, silicon

ABSTRACT: The conductivity of n-Ge and n-Si is calculated along a strong electric field and perpendicular to it. For n-Ge it was found that when a strong electric field is produced in direction $\langle 111 \rangle$, ratio $\sigma_\perp / \sigma_\parallel$ = 5.3. Experimental methods of investigating this anisotropic are shown. [Translation of abstract]

SUB CODE: 09, 20/

Card 1/1

L 05296-67   EWT(m)/EWP(t)/EWP   IJP(c)   JD

ACC NR: AR6031881   SOURCE CODE: UR/0058/66/000/006/E085/E085

AUTHOR: Kal'venas, S. P. ; Pozhela, Yu. K. ; Parshelyunas, I. V. ; Versotskas, A. P. ; Baravikas, V. V.

TITLE: Warmup of current carriers and their recombination on the surface of germanium in strong electric fields

SOURCE: Ref. zh. Fizika, Abs. 6E657

REF SOURCE: Lit. fiz. sb., v. 5, no. 4, 1965, 529-542

TOPIC TAGS: current carrier warming up, current carrier recombination, current carrier concentration, germanium

ABSTRACT: It has been ascertained that in n-Ge, starting with fields of the order of 1 kv/cm, considerable variations in carrier concentrations take place owing to the field dependence of the hot carrier recombination rate on the surface. In cases when mechanical defects or recombination centers related to the presence on the surface of dry oxide exists on the surface; there occurs a growth of current carrier concentration caused by the field. In the case of "neutralization" of the oxide recombination centers by water molecules, current carrier concentration in the

Card   1/2

ACC NR: AR6031881

specimen decreases considerably. An increase in the coefficient of ambipolar diffusion of current carriers with the field has been detected in the 1—4 kv/cm field range. It is demonstrated experimentally that regardless of the type of the current carrier determining the surface conductivity of Ge etched in hydrogen peroxide, the degree of current carrier heat-up at the surface is lower than within the bulk. [Translation of abstract]

SUB CODE: 20/

Card 2/2

ACC NR: AT5028691

SOURCE CODE: UR/2910/64/004/004/0479/0484

AUTHOR: Banis, T. Ya. -- Banys, T.; Pozhela, Yu. K. -- Pozela, J.

ORG: Vil'nyus State Pedagogical Institute (Vil'nyusskiy Gosudarstvennyy pedagogicheskiy institut); Institute of Physics and Mathematics, Academy of Sciences, Lithuanian SSR (Institut fiziki i matematiki Akademii nauk Litovskoy SSR)

TITLE: Harmonics of a current passing through a germanium sample in a strong high frequency electric field

SOURCE: AN LitSSR. Litovskiy fizicheskiy sbornik, v. 4, no. 4, 1964, 479-484

TOPIC TAGS: microwave, current carrier, waveguide, germanium, HF, ELECTRIC FIELD

ABSTRACT: The dependence of zero and higher harmonics of the current in n-type germanium as a function of the amplitude of the applied electric field is computed for different cases of inertia of heating of current carriers. Inertia of heating is expressed as

$$\frac{dE}{dt} = \frac{E_c - E}{\tau_\epsilon},$$

where E is the kinetic energy of a hot electron; E_c is the kinetic energy of a hot electron in the steady state and $\tau_\epsilon = f(E)$, but for purposes of calculation, is assumed

Card 1/2

L 36216-66 /

ACC NR: AT5028691

constant. The applied electric field was taken to consist of a strong variable field, $E_m \sin \omega t$, and a weak constant field E_0, $E_0 \ll E_m$. The formula

$$I_0 = \frac{1}{2\pi n} \int_0^{2\pi} \frac{m \sin \alpha + n}{r} \, d\alpha.$$

is derived for the amplitude of the zero harmonic, $\alpha = \omega t$. An expression is also deriv-ed for the amplitude of the kth harmonic. Using these equations, zero and higher har-monics were calculated on the BESM-2 for various values of E_m, E_0, and ω, and are

presented graphically. Experimental data was also obtained on germanium blocks 1.0× ×1.0×10 (or 5) mm^3. A limiting waveguide appropriate to the base frequency of 9.3 gigacycles was used as a filter to isolate the higher harmonics. Two types of filters were used, corresponding to waves of mode H_{10} and H_{30}; two measuring lines whose re-sonators were tuned to the double and triple frequencies, respectively, registered the higher harmonic signals. The second harmonic amplitude is plotted as a function of field amplitude E_m for E_0=125, 100, and 50 v/cm and the third harmonic amplitude is plotted as a function of the power of the basic-frequency UHF signal. The power of the third and fourth harmonics is on the order of tenths of watts, giving an efficien-cy coefficicient of a fraction of a percent. The authors thank A. I. Vebre for his help with the measurements. Orig. art. has: 5 figures, 9 formulas.

SUB CODE: 09,20/   SUBM DATE: 22Jan64/   ORIG REF: 002/   OTH REF: 001

Card 2/2

L 30968-66   EWA(h)/EWT(l)/EWT(m)/EWP(b)/T/EWP(t)   IJP(c)   AT/JD
                                    SOURCE CODE: UR/0181/65/007/012/3512/3514
ACC NR: AP6000847

AUTHOR: Kal'venas, S. P.; Pozhela, Yu. K.

ORG: Institute of Physics and Mathematics AN LitSSR, Vil'nius (Institut fiziki i matematiki AN LitSSR)

TITLE: Recombination of hot carriers through recombination centers on the surface of germanium

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3512-3514

TOPIC TAGS: germanium, surface property, carrier density, electron recombination, electric conductivity

ABSTRACT: This is a continuation of earlier work by the authors on the factors governing the carrier density in germanium under different conditions (FS v. 5, 556, 1965 and earlier papers). The present investigation was aimed at obtaining new data on the conditions for the occurrence of recombination centers on the surface of germanium and consisted of investigating the surface characteristics in the case of a heated carrier gas. The procedure employed was the same as described in the earlier paper, and permitted simultaneous observation of the effective lifetime of the carriers in the sample in strong and weak electric fields,

Card 1/2

L 30968-66
ACC NR: AP6000847

and the dependence of these quantities on the mag-
nitude and sign of the surface potential. From a
study of the variation of the electric conductivity
before and after application of the electric field
(σ and $\Delta\sigma$ respectively, Fig. 1) it is concluded
that the recombination is highly sensitive to
oxidation or other factors capable of mechanically
or chemically damaging the surface of the ger-
manium. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 21May65/
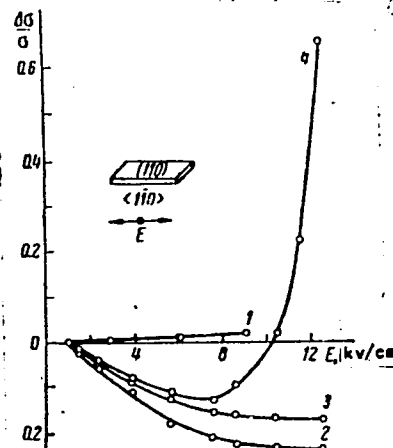
ORIG REF: 005/ OTH REF: 004

Card 2/2 (C

Fig. 1. Plot of $\Delta\sigma/\sigma$ vs.
electric field intensity E
for n-type germanium with
different surface finishes,
for different rates of sur-
face recombination.

L 27865-66   EWT(1)   IJP(c)   CC

ACC NR: AP5028463   SOURCE CODE: UR/0286/65/000/020/0030/0030

INVENTOR: Pozhela, Yu. K.; Levitas, I. S.; Varyakonte, A. P.

ORG: none

TITLE: Superhigh-frequency and infrared radiation modulator. Class 21, No. 175535
[announced by the Institute of Physics and Mathematics (Institut fiziki i matematiki)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 30

TOPIC TAGS: superhigh frequency modulation, infrared radiation modulator

ABSTRACT: This Author Certificate introduces a superhigh-frequency and infrared
radiation modulator in the form of a waveguide with a semiconductor plate. To sim-
plify the design of the device and to obtain the highest possible potential difference
across the surface of the plate, the plate is made, for example, from a germanium
single crystal so that its wide sides lie in the (110) plane and the current direction
makes an angle of 30° with the (001) direction.   [JR]

SUB CODE: 09/ SUBM DATE: 24Mar64/ ATD PRESS: 4/66
        /7/

Card 1/1   UDC: 621.376.9

POZHELAYEV, Ye., podpolkovnik

Adjusting subcaliber barrels. Veon. vest. 42 no.5:105-107 My
'63.   (MIRA 16:5)
    (Tanks (Military science)) (Shooting, Military)

L 45281-66

ACC NRı AP6023570 *(N)*   SOURCE CODE: UR/0401/66/000/007/0024/0027

AUTHOR: Pozhetskas, I. (Warrant officer); Amanbayev, M. (Petty officer first class); Dalakov, G. (Petty officer second class); Golub, I. (Junior sergeant); Nilovovich, I. (Sergeant, Commander of marine section); Zaytsev, V. (Lieutenant)

ORG: none

/6
/4
B

TITLE: Naval landing operations

SOURCE: Starshina-serzhant, no. 7, 1966, 24-27

TOPIC TAGS: landing operation, military personnel, armored carrier, armored car/ASU-57 air drop launcher, vehicle

ABSTRACT: The article consists of six individual reports made by various participants in a combined arms-landing operation during military training exercises. Warrant Officer I. Pozhetskas, Master Sergeant in charge of a ship's engine room, describes the duties of his crew and the hazards of his work. Petty Officer First Class, M. Amanbayev, radar operator, describes his work at the radar screen as the ship approaches the beach. Petty Officer Second Class. G. Dalakov, in charge

Card   1/2

L 45281-66

ACC NR: AP6023570

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of the torpedo electricians section, tells of the part played by his ship in protecting the landing operation from enemy ships and submarines. Sergeant I. Golub, commander of an air drop launcher "ASU-57" reports on his assignment to effect an airborne landing in the rear of the enemy forces and describes the landing operation as seen from the air. Sergeant I. Nivolovich, head of a marine unit, describes the assault of his men in armored carriers landing directly from the ships. Lieutenant V. Zaytsev, commander of a motorized infantry platoon, reports on the operations of his group, which landed in armored cars and was assigned to the destruction of enemy rocket installations and the prevention of a nuclear hit on the advancing units. Orig. art. has: 6 figures.   [GC]

SUB CODE: 01, 15, 05, 13/   SUBM DATE: none/

Card   2/2

FUCHIK, Yulius [Fučik, Julius]; POZHEZHINSKAYA, O.A.[translator];
    GAKKEL', Ya.Ya., otv. red.

    [Conquest of the North Pole; a report on the reality
    which surpassed the phantasy of Jules Verne] Zavoevanie
    Severnogo poliusa; reportazh o deistvitel'nosti, kotoraia
    prevzoshla fantaziiu Zhiulia Verna. Leningrad, Gidro-
    meteoizdat, 1964. 66 p.   (MIRA 18:.)

POZHEZHINSKAYA, ?.?.

KEGEL', Karl [Kegel, Karl]; POZHEZHINSKIY, A.B.;
    inzh. [translator]; POZHEZHINSKAYA, O.A. [translator];
REMESNIKOV, I.D., kand.tekhn.nauk, red.; DMITRIYEVA, L.N., red.
izd-va; ALADOVA, Ye.I., tekhn.red.; BERLOV, A.P., tekhn.red.

[Briquetting brown coal. Translated from the German] Briketiro-
vanie burogo uglia. Perevod s nemetskogo A.B.Pozhezhinskogo i
O.A.Pozhezhinskoi. Pod red. I.D.Remesnikova. Moskva, Ugletekhizdat,
1957. 658 p.   (MIRA 11:1)
                        (Briquets (Fuel))

KEGEL', Karl [Kegel, Karl]; POZHEZHINSKIY, A.B.;
inzh. [translator]; POZHEZHINSKAYA, O.A. [translator];
REMESHIKOV, I.D., kand.tekhn.nauk, red.; DMITRIYEVA, L.N., red.
izd-va; ALADOVA, Ye.I., tekhn.red.; BERLOV, A.P., tekhn.red.

[Briquetting brown coal. Translated from the German] Briketiro-
vanie burogo uglia. Perevod s nemetskogo A.B.Pozhezhinskogo i
O.A.Pozhezhinskoi. Pod red. I.D.Remesnikova. Moskva, Ugletekhizdat,
1957. 658 p.   (MIRA 11:1)

          (Briquets (Fuel))

POZHEZHINSKIY, A.B.

SHISHOV, Aleksandr Nikolaeyvich; POZHEZHINSKIY, A.B., otvetstvennyy
redaktor; SUROVA, V.A., redaktor izdatel'stva; ZAZUL'SKAYA, V.F.,
tekhnicheskiy redaktor

[Problems in economic efficiency of preparing fuel coal] Voprosy
ekonomicheskoi effektivnosti obogashcheniia energeticheskikh uglei.
Moskva, Ugletekhizdat, 1957. 101 p.   (MIRA 10:7)
    (Coal preparation)

ANDERSCH, O., zasluzhennyy deyatel' tekhniki Germanskoy Demokraticheskoy
Respubliki; POZHEZHINSKIY, A.B., inzhener, redaktor; ZARETSKIY, S.Ye.,
redaktor izdatel'stva; ALADOVA, Ye.I., tekhnicheskiy redaktor

[Consise manual on the briquetting of coal. Translated from the
German] Kratkoe rukovodstvo po briketirovaniiu uglei. Perevod s
nemetskogo pod red. A.B.Pozhezhinskogo. Moskva, Ugletekhizdat,
1956. 99 p.   (MLRA 9:9)
        (Briquets (Fuel))

POZHIDAYEV A.M.

KIRILLOV, M.N., professor; POZHIDAYEV, A.A., assistent; FROLOV, A.I., vetvrach.

Early partial and total castration of roosters, turkey cocks and gilts. Veterinariia 34 no.8:61 Ag '57. (MLRA 10:9)

1. Omskiy veterinarnyy institut.
(Castration)   (Poultry)   (Sows)

GORDIYENKO, M.I.; POZHIDAYEV, A.T.

Hydraulic method of cleaning crossover underjet tubes of coke-oven standpipes. Koks i khim. no.4:31-32 '61.   (MIRA 14:3)

1. Makeyevskiy koksokhimicheskiy zavod.
                (Makeyevka—Coke ovens)

PAKHOMOV, V.N.; POZHIDAYEV, A.V.; DENISOV, B.D.

Defects in air switches for electric arc furnaces. Prom. energ.
18 no.11:10-13 N '63.   (MIRA 16:12)

POSHIDAEV. A.

Akulinin, N. ; Iachenko, V.; POSHIDAEV. A.

"New Methods In Constructing And Heating Hotbeds. Tr. from The Russian.
p. 1418. (Za Socialisticke Zemedelstvi. Vol. 3, No. 11, Dec. 1953, Praha.)

Vol. 3, No. 3.
SO: Monthly List of East European Accessions,/Library of Congress, March 1954, Unc.

POZHIDAYEV, A. I.

32*   (Electrode Method of Disinfecting the Soil in the "Tich Memorial" Kolkoz in the Mytishchinskii Region of the Moscow Province.) Elektrodnyi sposob obezzarazhivaniia pochvy v kolkhoze "Pamiat' Il'icha" Mytishchinskogo Raiona Moskovskoi Oblasti. A. I. Pozhidaev and E. A. Platonova. Dostizheniia Nauki i Peredocogo Opyta v Sel'skom Khoziaistve, 1954, no. 8, Aug., p. 49-50.

Use of electricity to kill weeds and organisms.

POZHIDAYEV, I.I.

Mechanical unloader for unloading bulk materials from
flatcars. Suggested by I.I.Pozhidaev. Rats.i izobr.
predl.v stroi. no.11:25-27 '59.   (MIRA 13:3)

1. Nachal'nik transportnogo tsekha Bezmeinskogo tsementnogo
zavoda, Turkmenskogo sovnarkhoza, Ashkhabadskaya oblast'.
   (Loading and unloading) (Building materials—Transportation)

POZHIDAYEV, I., mayor

On the road of his father. Voen. Znan. 41 no.5:14-15 My '65.
(MIRA 18:5)

1. POZHIDAYEV, I.

2. USSR (600)

4. Telecommunication

7. Better management for district communications offices, Sov. sviaz.,
   3, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, __April,__ 1953, Uncl.

POZHIDAYEV, N.N.; PAVLOV, A.I.

Fourth Interuniversity Scientific Conference on Textiles.
Izv.vys.ucheb.zav.; tekh.leg.prom. 3:156-158 '62. (MIRA 15:6)
(Textile industry)

POZHIDAYEV, N.N., kand.tekhn.nauk, dotsent; PAVLOV, A.I., kand.tekhn.nauk, dotsent

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(Textile machinery) (Yarn—Testing)

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vedeniiu shveinogo proizvodstva. [By] B.A.Buzov i dr. Mo-
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New abrasion tester for textile fabrics and knit goods. Izv.
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1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.
Rekomendovana kafedroy materialovedeniya.
        (Textile fabrics—Testing) (Knit goods—Testing)

POZHIDAYEV, N.N.

Cotton mixing and cleaning processes in the organization of
automatically controlled production lines. Izv. vys. ucheb.
zav.; tekh. teks. prom. no. 2:43-48 '61.   (MIRA 14:5)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.
          (Assembly-line methods)   (Cotton spinning)

POZHIDAYEV, N.N.

Experience in manufacturing yarn from mixtures obtained in the
blending of raw cotton in gins.   Izv.vys.ucheb.zav.; tekh.tekst.
prom. no.6:81-85 '60.   (MIRA 14:1)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.
      (Gins and ginning)   (Yarn)

PAVLOV, A.I., kand.tekhn.nauk, dotsent; POZHIDAYEV, N.N., kand.
      tekhn.nauk, dotsent; SIMONENKO, D.F., inzh.

      Methods for testing the resistance of textile fabrics
      to abrasion on the TI-1 apparatus.' Izv. vys. ucheb. zav.;
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      1. Kiyevskiy tekhnologicheskiy institut legkoy
      promyshlennosti. Rekomendovana kafedroy materialovedeniya.
                      (Textile fabrics--Testing)

POZHIDAYEV, N.N.

Mixing capacities of saw gins. Izv.vys.ucheb.zav.; tekh.tekst.prom.
no.2:41-45 '60.   (MIRA 13:11)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.
         (Cotton gins and ginning)

POZHIDAYEV, Nikolay Nikolayevich, dotsent; PAVLOV, Anatoliy Ivanovich, dotsent; VADIMOVICH, Ivan Ivanovich, dotsent; KOVAL'SKIY, Anatoliy Grigor'yevich, inzh.; ZORUK, Vladimir Luk'yanovich, inzh.; ANOKHIN, Viktor Vasil'yevich, inzh.; SERGIYENKO, L., red.; BONDARENKO, O., red.; GUSAROV, K., tekhn.red.

[Textile materials for the clothing industry] Materialovedenie shveinogo proizvodstva. Pod obshchei red. N.N.Pozhidaeva. Kiev, Gos.izd-vo tekhn.lit-ry USSR, 1959. 411 p. (MIRA 13:2)
    (Clothing industry)   (Textile fabrics)

POZHIDAYEV, N.N., kand.tekhn.nauk, dots.

Scientific work of departments of the Kiev Technological Institute of Light Industry. Izv.vys.ucheb.zav.; tekh.leg.prom. no.6:6-10 '58.

1. Zamestitel' direktora Kiyevskogo tekhnologicheskogo instituta leg-koy promyshlennosti po nauchnoy rabote.
(Kiev--Technical education)

POZHIDAYEV, N.N.

3-6-18/?9

AUTHOR: Pozhidayev, N.N., Dotsent

TITLE: The Institute and Production (Institut i proizvodstvo)

PERIODICAL: Vestnik Vysshey Shkoly, 1957, # 6, pp 70-71 (USSR)

ABSTRACT: The article describes the close cooperation between the
Kiyev Technological Institute for Light Industry (Kiyevskiy
tekhnologicheskiy institut legkoy promyshlennosti) and the
plants and factories of the Ukraine. Thus, for instance,
the Candidates of Technical Sciences G.A. Piskorskiy,
L. P. Ivanovskaya and N.A. Adamova in cooperation with
Engineers Ye. A. Pepenyuk and G. I. Muzychenko of the Kiyev
Sewing Machine Plant imeni Smirnov-Lastochkin "Ukraina"
(Kiyevskiye shveynyye fabriki "Ukraina" imeni Smirnova-
Lastochkina), are working on the mechanization and auto-
mation of spreading cloth in the cutting rooms of the plant.
The Institute is manufacturing a new kind of artificial
fiber from the wastes containing animal albumen of the
leather, meat, and fish industries. The samples of fiber
obtained resemble in their outer appearance natural wool
and are almost as durable.
    The instructors of the Chair for Physics and Automation,
B. I. Lutsyk and others have, in conjunction with the workers

Card 1/3

3-6-18/29

The Institute and Production

of the Kiyev Knitted Wear Factory imeni R. Luxemburg
(Kiyevskaya trikotazhnaya fabrika imeni R. Lyuksemburg),
designed a photoelectronic automatic brake for knitting
machines. The device was sent to the All-Union Industrial
Fair. In cooperation with the Central Scientific-Research
Institute for the Knitting Industry (Tsentral'nyy nauchno-
issledovatel'skiy institut trikotazhnoy promyshlennosti)
and the Central Scientific-Research Institute for Textile
Machine Construction (Tsentral'nyy nauchno-issledovatel'skiy
institut tekstil'nogo mashinostroyeniya) the Chair has raised
some principal problems upon which the further mechanization
and automation of the knitting industry will depend.
    Dotsent Ya. I. Yesipenko, in charge of the Chair for
Machine Parts, has developed a standard drive with speed
variation for conveyers used in the shoe industry. The
Experimental Plant of the Ministry for Light Industry,
Ukrainian SSR, has begun series production of this device.
    Dotsent L. B. Peysakhzon, Candidate of Technical Sciences,
L. L. Alekseyeva, Candidate of Economic Sciences, and G. S.
Mesezhnikov have, in cooperation with the technical personnel
of the Kiyev Shoe Factory No 1 (Kiyevskaya obuvnaya fabrika
No 1), reorganized the work of the cutting room by applying a

Card 2/3

The Institute and Production

3-6-18/29

single-cradled shuttle conveyer (odnolyulechnyy chelnochnyy transporter). This resulted in an increase of production. The Dotsents I. V. Orlov and G. L. Trukhan are mentioned as having developed a new shoulder padding construction and a method of shaping patterns for the mass production of clothing. The Technical Council of the Ukrainian Ministry of Light Industry has approved the methods which are now undergoing tests at the House of Models.

ASSOCIATION: The Kiyev Technological Institute of Light Industry (Kiyevskiy tekhnologicheskiy institut legkoy promyshlenn-osti)

AVAILABLE: Library of Congress

Card 3/3

3-58-6-7/34

AUTHOR: Pozhidayev, N.N., Dotsent, Candidate of Technical Sciences

TITLE: Together with the Sovnarkhozes We Are Solving the Industrial
              Problems (Sovmestno s sovnarkhozami reshayem proizvodstvennyye
              zadachi)

PERIODICAL: Vestnik Vysshey Shkoly, 1958, Nr 6, p 31-33 (USSR)

ABSTRACT: The scientific staff members of the Kiyev Technological In-
              stitute of Light Industry established close business relations
              with the Republic's sovnarkhozes from the very moment of their
              organization. The studies of the scientific workers on urgent
              scientific research and experimental designing themes, carried
              out on a contract basis closed between the institute chairs
              and the enterprises of the light industry of the Kiyev sov-
              narkhoz, proved to be the most promising work. The workers of
              many chairs are participating in it. Thus, the members of the
              Chair of Technology of Tailoring and Knowledge on Material,
              the Dotsents I.V. Orlov, C.L. Trukhan, A.I. Pavlov and others,
              are working on theory and methods of designing clothing for
              mass production. The properties of knitted fabric made of
Card 1/3   different artificial fibers is being studied by members of the

3-58-6-7/34

Together with the Sovnarkhozes We Are Solving the Industrial Problems

Chair of Technology of Knitted Wear, the Dotsents L.P. Ig-
natova, A.B. Golovushkina, senior instructor F.A. Moiseyenko
and others. This work is being conducted in close cooperation
with the Kiyevskaya trikotazhnaya fabrika imeni Rozy Lyuksen-
burg (Kiyev Knitted Goods Factory imeni Roza Luxenburg). The
reasons for wear and tear and the wear-resistance of rubber
and leather, and how to protect shoes against wear and tear
are problems which workers of the Chair of Leather Technology,
Professor M.P. Kotov, Dotsent N.I. Chechenev, Candidate of
Technical Sciences G.V. Zhila and others are solving. The
Chair of Technology of Shoe Production (Dotsent A.A. Afanas'-
yev, Candidate of Technical Sciences V.A. Skaternoy, the in-
structors V.I. Tolochko, G.I. Roslik and others) is working
on questions of automation of shoe production processes. In-
structors of the Chair of Industrial Automation V.I. Lutsyk,
K.G. Rego and others have designed an automatic stopping device
for knitting machines. At present, 6 automatic stopping de-
vices, made by the Kiyev Experimental Workshops of the UkrSSR
Gosplan, are being tested at the Kiyev Knitted Goods Factory.

Card 2/3   A.P. Repetin, Dotsent of the Chair of Electrical Engineering

3-58-6-7/34

Together with the Sovnarkhozes We Are Solving the Industrial Problems

has studied the specific rates of expenditure of electric power at the Kiyevskaya obuvnaya fabrika Nr 1 (Kiyev Shoe Factory Nr 1). Many of his suggestions are at present being utilized at the factory. Together with the Kiyev Knitted Goods Factory, the Chair of Thermotechnics (Dotsent P.Ye. Dushskiy, Candidate of Technical Sciences M.K. Terenetskaya) has carried out studies on the boilers and the enterprise's heat economy. At present, 7 institute instructors, including Professor M.P. Kotov, Dotsents I.V. Orlov, L.P. Ignatova and others, are members of technical councils of the Kiyev Sovnarkhoz. The article contains other examples of the institute's cooperation with the sovnarkhozes of the Ukraine, such as delivery of lectures and reports, and conducting scientific conferences.

ASSOCIATION: Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti
               (Kiyev Technological Institute of Light Industry)

Card 3/3 .

POZHIDAYEV, N.N.

MODESTOVA, Tat'yana Alekseyevna; FLEROVA,Lyudmila Nikolayevna; BUZOV,
Boris Aleksandrovich; KUKIN, G.N., prof., retsenzent; POZHIDAYEV,N.N.,
dotsent, retsenzent; VARSHAVSKAYA, L.S., red.; MEDVEDEV, L.Ya.,
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proizvodstva. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po legkoi
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          (Clothing industry--Equipment and supplies)

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izd-vo BSSR. Red.nauchno-tekhn.lit-ry, 1958. 334 p.
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